REMARKS

Claims 12-17 and 21-32 are pending in this application.

Claims 12-17 and 21-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,276,351 (hereinafter Yamazaki) in view of JP Patent Publication No. 10-284643 to Hirose et al. (hereinafter Hirose). Applicants traverse.

The Office Action asserts that Yamazaki shows a base member 21 made of an alloy or composite mainly composed of Cu and W and/or Mo, wherein a coating layer 30 made of a hard carbon film is provided on at least a surface of the base member on which another member for the semiconductor device is bonded with a resin 31 in Fig. 2. The Office Action acknowledges that Yamazaki fails to explicitly show the coating layer having a thickness of 0.1 to 10 μm. The Office Action relies on Hirose in an attempt to cure the deficiencies of Yamazaki. The Office Action states that Hirose discloses the coating layer having a thickness of 0.1 to 10 μm for the purpose of providing a sufficient resin bonding strength to be maintained.

Turning to the cited references, Hirose describes an aluminum (Al) coated layer consisting of crystal grains having a 0.1 to 10 μm **diameter**, which is not a thickness of the coating layer. In Fig. 8, Hirose shows an aluminum oxide layer 19 and Al layer 20. As discussed in the Background Art section, Hirose is directed to forming an Al coating layer made of crystalline particles having a **diameter** of 0.1 to 10 μm on a Cu-W or Cu-Mo alloy, and forming an oxidation layer having a thickness of 10 to 800 Å on a surface of the Al coating layer (*see, e.g.*, pg. 4, lines 4-8 of the instant specification). According to the claimed subject matter per independent claims 12 and 16, the coating layer has a thickness of 0.1 to 10 μm. Thereby, as taught in the instant specification, bonding strengths after a thermal cycling test, a pressure cooker test (PCT), and a highly accelerated stress test (HAST) increase (*see, e.g.*, pg. 16, line 22-

pg. 19, line 9). In contrast, the bonding strengths after PCT and HAST (300 hours) are lower in Hirose than the present application. Thus, the present claims are further distinguishable over Hirose, as Hirose fails to suggest the unexpected improvement in resin bonding strength according to the claimed member for a semiconductor device as found, for example, in the Table on page 18 of the present specification.

Hirose fails to disclose or suggest, at a minimum, "...the coating layer has a thickness of about 0.5 to 1.5 μm," as recited in independent claims 12 and 16. Therefore, Hirose does not cure the deficiencies of Yamazaki.

Neither Yamazaki nor Hirose, individually or combined, disclose or suggest, "...the coating layer has a thickness of about 0.5 to 1.5 μm," as recited in independent claims 12 and 16.

Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). There is no suggestion in Hirose to modify the thickness of the coating layer, nor does common sense dictate the Examiner-asserted modifications. The Examiner has not provided any evidence that there would be any obvious benefit in making the asserted modification of Hirose. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

The only teaching of the emitters having a coating layer having a thickness of 0.1 to 10 μm is found in Applicants' disclosure. However, the teaching or suggestion to make a claimed

combination and the reasonable expectation of success must not be based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

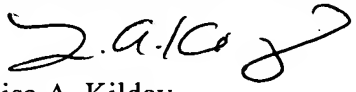
Withdrawal of the foregoing rejection is respectfully requested.

Conclusion

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Lisa A. Kilday
Registration No. 56,210

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 BKS/LAK
Facsimile: 202.756.8087
Date: March 28, 2008

Please recognize our Customer No. 20277 as our correspondence address.